

REMARKS

Claims 1-4, 6-13, 15, 16, 19 and 20 have been rejected in view of Kanoa (915). Applicant respectfully traverses the rejection in the Kanoa (915) patent as described in section 3, lines 54 thru 56, this hose is "formed by winding a pair of coated wires spirally at a double pitch...." These pairs of wires are noted as 10a and 10b in Figures 1,2,3,6,7,8,9,10,11 and as 6a and 6b in Figures 12, 13, 14.

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Claims 1-4,6-13,15,16,19 and 20 are patentable over Kanoa because they have a single wall and not a double wall as required by Kanoa. Claims 6-20 and 22 are further distinguished from Kanoa as the Applicant's structural wire has a single pitch not a double pitch as taught by Kanoa. In the present invention these are the helix 22 of the hose. The helix 22 may be any material that retains its shape and configuration in the hose, such as metal or plastic wire.

Claims 1-4, 6-9 and 15 are not anticipated by Ragner. Ragner is for a specific extensible hose and does not include the type of electrical or current carrying designs or capabilities as described in Flexible Technologies' application. Ragner teaches a biasing spring 36 that can be a helical spring that extends the full length of the hose, but may be comprised of multiple spring coils and/or multiple diameter spring coils. The spring 36 may be integrated completely with the hose or may be internal or external to hose. The helix 22 of the present invention is not a spring, but made of either plastic or metal wire and is intended to carry a current the helix is preferably made of a suitable conductive material. The helix in the present invention serves the purpose of structuring the hose, carrying current and also may be insulated and used as a conductor. Also, importantly, Ragner is a doubled wall structure unlike the present invention of Flexible Technologies which is a single walled structure.

Claims 1-4,6,8 and 12 are not anticipated by Pavlic. The Pavlic patent states in column 3, lines 64 thru 72, that the electrical capability is defined as "a pair of narrow small electrical conductors.....embedded within the wall of tube 21 at one side and follow the longitudinal contour...". Pavlic does not have a helical structural member as is the case with the Applicant's hoses. In the

present application the conductors are wrapped circumferentially around the hose and not longitudinally as in Pavlic.

Claims 1-4 are not anticipated by Duff. In Duff the hoses described are for a specific extensible hose and do not include any type of electrical or current carrying designs or capabilities as described in Flexible Technologies' patent application. Duff is directed towards a flexible hose and does not contemplate the carrying of electric current. Furthermore, Duff, unlike the present invention, the Duff hose's flexibility and stretchability continuously varies from one end thereof to the other.

Claims 1-4, 6-9, 12, 13, 15-17 and 19 are not anticipated by Fujimoto. Fujimoto as described in column 2, line 48 thru 51, this hose is "composed of a hose wall comprising an inner wall and an outer wall, and a spiral reinforcement interposed between the inner wall and the outer wall." None of the constructions described in Flexible Technologies' patent include an inner and an outer wall with the wire encapsulated between the two. All of the Applicant's hoses are single wall constructions.

Claims 7, 9, 10, 11, 13-16, 19 and 20 of the present invention is not unpatentable over Pavlic in view of Kanao because the Pavlic patent in column 3, lines 64 thru 72, the electrical capability is defined as "a pair of narrow small electrical conductors.....embedded within the wall of tube 21 at one side and follow the longitudinal contour...". In Applicant's hoses, as described in the patent claims, the conductors are wrapped circumferentially around the hose and not longitudinally as in Pavlic. Furthermore, the Kanao (915) patent as described in section 3, lines 54 thru 56, this hose is "formed by winding a pair of coated wires spirally at a double pitch...." These pairs of wires are noted as 10a and 10b in Figures 1,2,3,6,7,8,9,10,11 and as 6a and 6b in Figures 12, 13, 14. All the hoses noted in the Flexible Technologies' patent are constructed from a single structural wire on a single pitch. In the present invention these are the helix 22 of the hose. The helix 22 may be any material that retains its shape and configuration in the hose, such as metal or plastic wire. The helix provides strength to the hose and helps prevent the hose from being crushed. The helix is combined with two or more conductors to provide support and to be used in low voltage, high voltage or low/high voltage applications. In Kanao, the coated wire 10 is formed col 3 lines 44-51, that a reinforcement wire

material 1 made of hard steel wire having a diameter of about 1mm and a conductive wire 2 obtained by intertwisting a large number of copper fines are respectively coated with polyvinyl chloride resin 11 in the shape of an arc while the resin is partially connected between the reinforcement wire material 1 and the conductive wire 2 so as to be shaped like eyeglasses in the section. The present invention does not teach the use of a two wires for formation of a coated wire to support the hose, the present invention teaches the use of a second conductive wire on the side of the helix opposite the first conductive wire. The two opposing wires are laid on either side of the helix and serve the purpose of two insulated conductor wires.

Furthermore, the hose of the present invention is unlike Kanoa because it has a limitation on the continuity of the pitch. In the present invention the hose is adapted to carry a current in its helical member and so that the pitch is constant along the length of the hose.

Claims 14, 17 and 18 of the present invention are not unpatentable over Kanoa in view of Fujimoto. Kanoa does not disclose the recited structure of the present invention, the Kanoa (915) patent as described in section 3, lines 54 thru 56, this hose is "formed by winding a pair of coated wires spirally at a double pitch...." These pairs of wires are noted as 10a and 10b in Figures 1,2,3,6,7,8,9,10,11 and as 6a and 6b in Figures 12, 13, 14. All the hoses noted in the Flexible Technologies' patent are constructed from a single structural wire on a single patch. In the present invention these are the helix 22 of the hose. The helix 22 may be any material that retains its shape and configuration in the hose, such as metal or plastic wire. Further, the hose of the present invention is adapted to carry a current in its helical member and so that the pitch is constant along the length of the hose. Therefore, because Kanoa does not disclose the same structure as the present invention, the claims 14, 17, and 18 are patentable over Kanoa in view of Fujimoto.

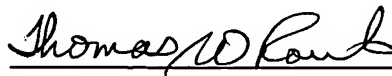
Claims 5, 10, 11, 14, 18 and 20 are not unpatentable over Fujimoto because Fujimoto as described in column 2, line 48 thru 51, this hose is "composed of a hose wall comprising an inner wall and an outer wall, and a spiral reinforcement interposed between the inner wall and the outer wall. None of the constructions described in Flexible Technologies' patent include an inner and an outer wall

with the wire encapsulated between the two. All of the Flexible Technologies' hoses are single wall constructions and therefore the present invention is patentable over the prior art.

CONCLUSION

For the foregoing reasons, applicant's claims are patentable over the cited prior art and the application should be in condition for allowance.

Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that the foregoing Response was mailed by first class mail, postage prepaid, in an envelope addressed to the Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 on this 6th of January, 2003.

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